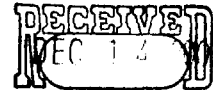


Wildman, Harrold, Allen & Dixon  
225 West Wacker Drive  
Chicago, Illinois 60606-1229  
312-201-2000  
312-201-2555 fax  
www.wildmanharrold.com

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James R. Morrin  
312-201-2564  
morrin@wildmanharrold.com



Wildman Harrold  
Attorneys and Counselors

December 13, 2001

Docket Coordinator, Headquarters  
U.S. Environmental Protection Agency  
CERCLA Docket Office  
1235 Jefferson Davis Highway  
Crystal Gateway #1, First Floor  
Arlington, VA 22202

Re: Comments on the Proposed Listing of Sauget Area 2, in Sauget  
and Cahokia, Illinois, on the CERCLA National Priorities List

Dear Docket Coordinator:

These comments are submitted by Union Electric Company d/b/a AmerenUE ("UE") in response to the proposal by the United States Environmental Protection Agency ("EPA") to list the "Sauget Area 2" sites on the National Priorities List (NPL). See 66 Fed. Reg. 47,618 (September 13, 2001). Sauget Area 2 is an aggregation of five parcels of land that are referred to as "sites" in the listing documents, the combined area of which totals 312 acres. Area 2 is located in Sauget and Cahokia, Illinois.

The EPA has notified UE that it is a Potentially Responsible Party at the proposed Area 2. UE has a significant interest in the proposed NPL listing because it is presently the owner of a portion of what the Agency has designated "Site P," within Area 2, and because it formerly owned and operated an electrical generating facility in Sauget, Illinois and leased a portion of one of the sites for the storage of fly ash. The ash ponds were located in a narrow corridor within the middle-section of a parcel that EPA has designated "Site Q."

The original Federal Register notice for this proposed listing set a deadline of November 13, 2001 for the filing of comments. By letter dated October 22, 2001, Mr. Dave Evans, Director of the State, Tribal and Site Investigation Center at EPA's OSWER granted UE a 30-day extension of the comment period, through December 13, 2001. A copy of the letter granting UE this extension is attached as Exhibit 1.

As part of these comments we attach and incorporate by reference as Exhibit 2 a technical report of Newfields, Inc., entitled *Comments on Sauget Area 2 Hazard Ranking System Listing Document* ("Newfields Report"); the 45 exhibits to the Newfields Report are in a separate 3-ring binder. In these comments, we refer to exhibits using the same numbers as those used by

Newfields. A list of exhibits appears at the end of the Newfields Report, and an additional copy of these comments, including the Newfields Report, appears at Tab 45 of the exhibit binder.

In proposing Area 2 for listing on the NPL, EPA made a series of fundamental errors:

1. when it aggregated "Site P" with other Sites in Area 2;
2. when it chose an inappropriate conceptual site model for Area 2;
3. when it aggregated three contiguous but distinct areas into a single parcel now identified as "Site Q";
4. when it disregarded its own 1994 performance of a CERCLA time-critical removal action on the southern portion of what the Agency refers to as Site Q;
5. when it incorrectly determined the length of wetland shorelines within Site Q;
6. when it assumed the presence of endangered species on Site Q without any verification for that assumption; and
7. when it relied on inappropriate sampling techniques in collecting groundwater data in Site Q.

All these errors were made in disregard of established legal authority; or of the Agency's own Hazard Ranking System (HRS) regulations, 40 C.F.R. Part 300; or of the Agency's own published guidance, *The Hazard Ranking System Guidance Manual* (November 1992) ("HRS Guidance"). As such, the Agency actions are arbitrary, capricious and unreasonable, or not otherwise in accordance with the law. *Tex Tin Corporation v. EPA*, 992 F.2d 353, 354 (D.C. Cir. 1993).

In these comments, UE will present an abbreviated introduction, followed by an itemized discussion of the significant conceptual and regulatory errors made in characterizing and scoring the properties that comprise "Area 2."

## **I. BACKGROUND**

The five properties that are collectively identified as "Area 2" in the Agency's proposed NPL listing notice all lie within the vicinity of Sauget and Cahokia, Illinois. Only two of these five properties are contiguous, but all were nevertheless aggregated by EPA in its proposed listing.

The five properties or "sites" that make up Area 2 have been designated by EPA as Sites O, P, Q, R and S, for a total of 312 acres. Four of the five sites have a distinct and rather singular history of use for various forms of waste disposal. A more detailed description of each site's history is found in the Newfields Report at pages 6-7.

Briefly, Site O, at 20 acres, is presently inactive, but from 1966 to 1978 it was used to contain sludge dewatering lagoons. Site P, at 28 acres, is inactive but at one time was operated as a permitted non-chemical landfill. As stated above, UE is an owner of a portion of Site P. Site R, at 25 acres, was operated as a landfill from 1957 to 1977 and was known as the Sauget Toxic Dump. The fourth site, Site S, is believed to have been operated as a chemical drum disposal site in the 1970s.

The fifth site, Site Q, at 255 acres, is the largest of the sites. Given its size, it is not surprising that the site was never devoted to a single use. Two parcels in Site Q — one at the site's northern end ("Northern Q") and the other at its southern end ("Southern Q") — both have a history of use for waste disposal. The very northern "dogleg" parcel, which is directly adjacent to Site R but which has boundaries distinct from Site R, was operated as the Sauget Municipal Landfill. The southern region of Site Q was put to an entirely different use unrelated to the northern portion; various portions of southern Q were used at different times for drum disposal. The central portion of Site Q ("Central Q"), according to aerial photographs and other documents, was used for neither landfilling nor waste disposal. A few areas within central-Q were used to store fly ash; more recently, the central parcel of Q has been used to store coal. Some areas within central Q have never been used for anything other than farming.

The five sites comprising "Area 2," then, have little or nothing in common historically and nothing in common at present except for the aggregation sought by EPA in the proposed listing. As will be shown in the discussion that follows, this lack of commonality is a fundamental and unavoidable shortcoming in EPA's proposal to cobble together a much larger Superfund site than is allowed under federal law, the HRS, or the EPA's own HRS Guidance.

## **II. EPA HAS NO BASIS FOR INCLUDING "SITE P" IN AREA 2.**

Of all the errors committed by EPA in the proposed listing, its inclusion of Site P in Area 2 is the most obvious and it is unsupported by any authority.

EPA has the authority to list a release on the NPL if the HRS score for that release exceeds 28.5. But a review of the administrative record shows that here EPA did not score any single release. Instead, EPA aggregated all of the alleged "releases" at each of the sites it has identified — O, P, Q, R and S — into a single release, and then calculated a score for the aggregation. In doing so, EPA used toxicity values for contaminants found not at Site P, but at Site R (e.g., PCBs, VOCs) and assigned these values to all the sites rather than quantifying the true toxicity value for contaminants at each individual site. Had EPA used contaminant toxicity

values for materials actually found at Site P (only manganese and phenol), the Site P HRS score would be, as shown by Newfields, dramatically lower. Newfields Report, p. 23.

EPA does not have the statutory authority to aggregate releases from geographically distinct areas for purposes of scoring them collectively under the HRS. Authority for such site aggregation cannot be found in CERCLA itself, 42 U.S.C. § 9601 *et seq.*, nor in the regulations adopted under CERCLA, 40 C.F.R. Part 300. EPA has, in the past, claimed such authority under CERCLA, and has even cited to its so-called "Aggregation Policy" as support for its right to combine distinct, non-contiguous properties, but both those claims were squarely refuted by the Appellate Court in *Mead Corp. v. Browner*, 100 F.3d 152, 153 (D.C. Cir. 1996).

As will be further discussed below, EPA may not include Site P in its listing proposal for Area 2 unless Site P is independently scored under the HRS and it receives a sufficiently high HRS score on its own. Because EPA did not even bother to score Site P independently, there is no factual or legal support on which to base EPA's proposed inclusion of Site P in Area 2. Moreover, even were the Agency to have scored Site P under the HRS, it would have obtained a very low score. Site P simply should not be part of the Agency's Area 2 listing proposal.

#### **1. The Agency Must Separately Score Non-Contiguous Sites.**

Of the five "sites" proposed by EPA for inclusion and listing as "Area 2," only two bear designated boundaries that are contiguous.<sup>1</sup> The other three, Sites O, P, and S, are not contiguous, and of these, Site P is most distant from the others. A review of the HRS Documentation Record shows that EPA aggregated all of the sites within Area 2 when it calculated the HRS score for this area. The record contains no HRS scoring for Site P alone.

EPA's authority both to establish the NPL and to develop risk-based criteria for placing a facility on the NPL derives from Section 105(a)(8)(B), 42 U.S.C. § 9605(a)(8)(B). The appropriate risk-based criteria are set forth at CERCLA Section 105(a)(8)(A). Pursuant to this authority and using this fundamental criteria, EPA developed the Hazard Ranking System, 40 C.F.R. Part 300, App. A.

Under the CERCLA regulations, EPA may list a facility on the NPL only if it meets any one of three criteria: The facility scores sufficiently high under the HRS; or the facility is designated as being of "highest priority" by a state; or if (i) the Agency for Toxic Substances and Disease Registry (ATSDR) has issued a "health advisory" for the facility, and (ii) the EPA finds that the site poses a significant threat, and (iii) EPA determines that a remediation is the most cost effective response method. 40 C.F.R. § 300.425(c).

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<sup>1</sup> UE disputes EPA's designation of Site Q as a single "site," and contends that based on history and sampling data, Site Q should be treated as three distinct sites for listing purposes. See *infra* at pages 9-10.

Here, EPA is basing its recommendation to list Site P on the NPL based on an HRS score, but not an HRS score developed for Site P. Indeed, an examination of the scoring documents in the administrative record shows that the Agency performed only a single "scoring," and that scoring was based on all of the sites proposed to constitute Area 2.

The record itself contains no discussion of EPA's aggregation of the five sites. But EPA's authority to aggregate two or more non-contiguous areas into a single area for NPL listing purposes is subject to a single, clear, and well established rule of law: EPA may not list a discrete parcel of land on the NPL unless that discrete parcel qualifies under EPA's "statutorily warranted criteria." *Mead Corp. v. Browner*, 100 F.3d 152, 153 (D.C. Cir. 1996). Under this rule, unless EPA establishes that Site P meets the listing criteria set forth in the HRS, it cannot include Site P in Area 2.

As the EPA well knows, in *Mead* the petitioner challenged EPA's attempt to aggregate three separate, non-contiguous land parcels into a single site for listing on the NPL. Two of the sites to be aggregated met the listing criteria set forth in CERCLA, but the third site – not contiguous with the other two – had not been scored by the EPA and did not otherwise qualify for listing under Section 105 of CERCLA. EPA claimed that under Section 105 it had authority to aggregate sites for NPL listing, but the court flatly rejected this contention.

In rejecting the applicability of EPA's "Aggregation Policy," the court noted that the policy on its face applies to Section 104(d)(4) of CERCLA, not Section 105, and it further noted that Congress gave EPA no authority under CERCLA to aggregate non-qualifying, non-contiguous sites for purposes of NPL listing. 100 F.3d 152, 155. In completely rejecting both the authority for and the application of EPA's Aggregation Policy for purposes of NPL listing, the court stated:

Because EPA lacks statutory authority to use its Aggregation Policy to list on the NPL a site that would not otherwise qualify, we vacate EPA's inclusion of [Petitioner's property] within its...listing.

100 F.3d 152, 157.

In light of the unequivocal language in *Meade*, a case with facts nearly identical to those in this matter, EPA may not propose Site P for the NPL unless it can demonstrate that Site P, standing alone, exceeds the HRS listing threshold.

## **2. Site P Is A Low-Risk Site**

Given the clear authority contained in *Meade*, little more need be said about the impropriety of EPA's inclusion of Site P in this proposed listing, except to note that had the EPA scored Site P independently, it would have derived a score for Site P of 0.60 – a far cry from the score needed to qualify Site P as a “high risk” site such that it should be listed on the NPL. Accordingly, even if EPA had followed the requirements of CERCLA Section 105 and the law set out in the *Meade* decision and had scored Site P, there would be no basis to include Site P in Area 2. For all these reasons, the Agency must remove Site P from this proposed listing.

## **3. Illinois EPA Has Concluded That Site P Should Not Be Included in Area 2.**

As noted in the Newfields Report at page 5, the Illinois EPA, which is well familiar with all of the “sites” and with “Area 2,” does not believe that Site P should be aggregated with the other Area 2 sites. Expanded Site Inspection Report (IEPA), Ecology & the Environment, Inc., Vol. 1 of 2, Exhibit 3 to Newfields Report, p. 14.<sup>2</sup>

## **III. EPA'S CONCEPTUALIZATION OF AREA 2 IS SKEWED AND INACCURATE**

The Agency's purpose in specifying any geographic area for listing on the NPL is to efficiently and correctly address sites that propose a significant risk of harm to human health and the environment, and indeed, this is the whole point of the NPL and the Hazard Ranking System. Reference to the Agency's own guidance on HRS scoring makes clear that the Agency seeks to properly investigate and characterize contamination at any given location to ensure proper and complete remediation. 40 C.F.R. § 300.430(b)(2). But a technical review of the HRS Documentation in the case of Sauget Area 2, suggests that EPA has not correctly characterized the conditions that exist in this area, and has committed other fundamental errors in the proposed listing.

The fundamental flaw in EPA's approach to its evaluation of this site is its failure to consider contributions to the groundwater contamination in Area 2 from sources outside of any of the proposed Area 2 sites. Had EPA given any consideration to external sources, it could never have developed the surrealistic plume definition shown in the listing documentation. HRS Documentation Record, p. 10. And were EPA to adopt a plume definition that fit the known data about Area 2 (and Area 1), its initial view and ultimate handling of Area 2 may fundamentally change. If Area 2 is suspected to be a high-priority site under CERCLA, then at the very least the Agency should apply itself to actual conditions in this area before it proposes any Area or any site within the area for listing on the NPL.

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<sup>2</sup>Although EPA made Volume 2 of this report part of the administrative record, it did not include Volume 1 of the report. Accordingly, the relevant portion of the report is included as Exhibit 3 to the Newfields Report.

### **1. The Centerpiece Of EPA's Model Is A Plume With No Source**

Page 10 of the HRS Documentation Record depicts what EPA has determined to be the "Ground Water Plume" under Area 2. This plume purportedly originates at the eastern boundary of Site O and extends both westerly and southwesterly from O. The plume also supposedly exists under the southern end of Site P, from which it flows southwesterly towards Site R and ultimately to the Mississippi River. Thus depicted, the plume lies under all of the sites in proposed Area 2. EPA comments on this plume, stating, "The ground water below the Sauget Area 2 site appears to be contaminated from sources located on-site." HRS Documentation Record, p. 60.

UE's environmental consultants, Newfields, have studied the technical materials that comprise the HRS Documentation Record, with particular study of the References listed in that record. HRS Documentation Record, pp. 11-12. As a result of their study of the available data, plus such additional sampling data as was also available to EPA for Area 1, Newfields has also identified the true "plume" of contamination that likely exists in Area 2.<sup>3</sup>

The Newfields Report depicts a plume of groundwater contamination that is vastly different than that proposed by EPA. Newfields Report, p. 11, Figure 12. Unlike the EPA's proposed groundwater plume, which appears to spring from nowhere, the true plume noted by Newfields drew itself – its appearance is a product of the groundwater contamination data available for a single chemical, chlorobenzene, and is simply a graphical representation of that data. Notably, this data shows no groundwater flow component to the southwest. More notably, the true initial source of the groundwater plume is (among other nearby sources) the Monsanto Krummrich facility – it does not magically spring into existence at the eastern boundary of Area 2. Finally, the available data indicates that there is no so-called "plume" under Site P. Newfields Report, p. 8-14.

### **2. The Initial Sources of Area 2 Groundwater Contamination Are Off-Site Industrial Sources, Including The Krummrich Plant**

The Newfields Report demonstrates quite clearly that the initial source of the contaminant plume across a portion of proposed Area 2 emanates from sources outside of Area 2; among these sources is the Krummrich plant, but there may be other sources. *See*, Newfields Report, p. 4. Although UE recognizes that EPA has not included the area comprising the Krummrich facility (or other facilities in the vicinity of Krummrich) as part of "Area 2" because that facility

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<sup>3</sup> In order to depict the true plume affecting Area 2, Newfields utilized groundwater sampling data for chlorobenzene, obtained in 1999 and earlier. Included with the Newfields exhibits at Tab 44 is a CD containing each data point and referencing the documentary source for each point. *See*, Newfields Report, p. 3, discussion after Table of Contents.

is being addressed separately under a RCRA-based Administrative Order, UE believes that EPA's failure to acknowledge the contribution of Krummrich (or other off-site sources) to the contaminant plume that flows under portions of proposed Area 2 has fundamentally flawed its approach to all of Area 2. UE believes that unless the EPA acknowledges the significant groundwater contribution flowing under Area 2 from upgradient areas, the investigation and characterization of Area 2 will continue to be inaccurate and fundamentally unfair to parties that had no connection with upgradient sources of contamination.

### **3. Groundwater Flow Across Area 2 is Due West**

Another notable flaw in EPA's conception of Area 2 is best depicted at Figures 12 and 14 of the Newfields Report. Newfields Report, p. 11, 14. These figures demonstrate that, contrary to EPA's depiction of the "groundwater plume" in the HRS Documentation Record, the real groundwater "plume" under Area 2 moves not to the southwest, but to the west. This conclusion is also supported through Newfields' variographic analysis of the data for Area 2, and its discussion of that data. Newfields Report, pp. 9-13.

As stated above, the graphical presentation of available chlorobenzene data for Area 2 demonstrates that EPA has ignored a significant source of groundwater contamination and that the contaminated groundwater plume under Area 2 flows due west (and not southwest). These two facts, in turn, call to question other unstated, but clearly erroneous conclusions about the site implied by EPA's inclusion and characterization of the sites that make up proposed Area 2. First, EPA's "groundwater plume" diagram, which graphically suggests that contaminated groundwater moves from the Source O area southwest under the middle-section of Site Q, is simply not correct, and UE challenges and questions any implied conclusion by EPA that the mid-section of Site Q overlies a contaminant plume moving from some contaminated site outside of Area 2 or otherwise. The southwestern movement of groundwater across Area 2 is inconsistent with the available information about Area 2. Second, the Newfields characterization of groundwater flow as being due west also challenges EPA's inclusion of Site P in Area 2. As will be discussed below, the available data does not show any plume of contamination underlying Site P; the information presented in the Newfields Report simply underscores the fact that Site P is hydraulically isolated from the other Sites.

When the groundwater conditions at Area 2 are analyzed based on actual data and not hopeful speculation, two conclusions become apparent: First, the only portion of Site Q that is likely affected by upgradient groundwater contamination is that portion that is due west of the Krummrich Facility, and this portion is identified and discussed below as "Northern Q" or the "dogleg" portion of Q. Second, Site P has no connection with any groundwater plume – neither the actual plume nor even the one suggested by EPA in the HRS Documentation Record.



#### **IV. PORTIONS OF SITE Q HAVE BEEN MIS-CHARACTERIZED AND INCORRECTLY SCORED AND SHOULD NOT BE PART OF AREA 2**

Initially, it is difficult to discuss Site Q because the HRS Documentation Record and other reference documents that are part of the administrative record leave the intended boundaries of Q in doubt. From the record and other materials pertaining to so-called "Site Q," UE cannot determine whether the Site was intended by EPA to include the former UE ash ponds located near or on the western boundary of Site Q, as shown in Figures 27-30 at pages 24-25 of the Newfields Report. EPA should clarify the Site Q boundaries if and when it proposes a final rule on this listing.

Whatever the intended boundaries of Site Q, the Agency mischaracterizes the Site's history when it treats Site Q as a single site. Site Q, as described in both the HRS Documentation Record (at page 13) and at page 6 of the Newfields Report, at 225 acres, is by far the largest of the parcels comprising Area 2, being more than seven times the area of the next largest site. The history of Site Q shows that various parts of this site have been put to at least three uses in the past, each use being different and occurring in a distinctly different portion of Site Q from the other two. The Newfields Report at page 6 states that the northern portion of Q (the Newfields Report refers to the "dogleg" portion due east of Site R as "Northern Q") was used for landfilling, while the very southern area of Site Q was used as a drum storage area. The middle portion of Q, however, may have only been used for the disposal of fly ash and, possibly, domestic garbage. Newfields Report, p. 6. Thus, "Site Q" is not truly a single parcel, and each of the wastes found in the three sections bear no relationship to the others. Pursuant to the HRS Guidance, EPA should not have aggregated and then scored northern, middle and southern Site Q; these sites should have been scored separately.

##### **1. The Agency Has Not Clearly Defined Site Q**

The HRS Documentation Record contains no legal description of Site Q, and the only means by which it is identified is by drawing dated March 1, 2001. HRS Documentation Record, p. 9. This drawing leaves doubt as to the intended western boundary of Site Q, because it appears that the Agency's description of Site Q does not include certain portions of the shoreline. Earlier documents pertaining to this area, generated by the Illinois EPA, suggest that the Site Q shoreline should not be included in Area 2; an Illinois EPA drawing of Site Q shows that the western shoreline of Site Q is not included in the definition of the site. *See*, Newfields Report, pp. 24-25, Figures 27-31. The EPA should clarify the intended boundaries of Site Q.

**2. The Ash Ponds on Middle-Q Should Not Be Aggregated With Northern and Southern Site Q**

Even if the Agency contends that Site Q includes the former UE ash ponds, the “middle-Q” parcel should not have been aggregated with the distinctly separate sources in the north and south of Site Q. Section 4.2 of the HRS Guidance provides in pertinent part, “If sources are similar in type and have similar target populations, the scorer should consider aggregating them into one source.” HRS Guidance at 49. There is no dispute that the “source type” in northern Q is a landfill, and in southern Q it is drums. HRS Guidance, p. 42. And there is no data to show that middle Q is a source at all, but it is clearly neither a landfill nor a drum storage area. Therefore, the three areas of Site Q do not meet the most basic aggregation criteria in the HRS Guidance: The “source type” of northern and southern Q are not the same.

The HRS Guidance also provides a “checklist” in order to determine whether separate sources should be aggregated. HRS Guidance, Highlight 4-6, p. 51. The checklist contains a list of six items, and the Guidance provides that only if the answer to each checklist question is “yes” should the sources be aggregated. As noted above, when considered for aggregation the sources in northern and southern Q fail the test of source type, because the areas are different source types. But the checklist comparison also shows that the sites fail a second item — “similar waste characteristics.” HRS Guidance, Highlight 4-6, p. 51. As noted in the Newfields Report, the waste characteristics of the sources found at northern and southern Q are not similar. Newfields Report, p.29.

Even if the northern and southern Q sources are considered to be “overlapping sources,” they still fail the EPA’s test for aggregation. According to Agency guidance, overlapping sources should be aggregated only when there is a similarity or identity between the sources for site-specific disposal operations, the type of hazardous substances found in each source, and the containment characteristics of the sources. HRS Guidance, Highlight 4-7, p. 52. Here, it is abundantly clear that there is no identity of disposal operations among the three parts of Site Q, and it has already been shown that the hazardous wastes are different between southern and northern Site Q.<sup>4</sup>

Finally, the Agency is reminded of Section 125(b) of CERCLA itself, 42 U.S.C. § 9626(b), in which Congress provided special commentary on fly ash waste, and considerations respecting such waste when EPA is engaged in an HRS scoring. To be sure, this section does not preclude listing of a property that is otherwise contaminated with other hazardous wastes, but in this case, “middle-Q” has no wastes to speak of, save for the fly ash ponds, if in fact Site Q does

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<sup>4</sup> Middle Site Q may contain nominal amounts of hazardous substances, but this contamination bears no relationship to the contamination at northern and southern Q.

contain those ponds. Given the precautionary language of SARA and the subsequent revision of the HRS to comply with the dictates of Congress in Section 125(b), the Agency should give special consideration to aggregating "middle-Q" with other areas on Q that have completely different histories and wastes.

For all these reasons, central Site Q should not have been included as part of Site Q, and southern Site Q also should not have been aggregated with the northern "dogleg" area of Q. The only portion of "Site Q" that warrants inclusion in Area 2 is the northern-most section, adjacent to Site R. Newfields Report, p. 29.

## **V. EPA FAILED TO CORRECTLY SCORE FOUR ELEMENTS OF RISK AT SITE Q**

In employing the scoring methods and making its assumptions about Site Q, the Agency either ignored its own guidance or it ignored the HRS regulations, and in both cases these errors resulted in an incorrect HRS score. These errors included the Agency's failure to consider the 1994 removal action that was conducted by IEPA on southern Site Q; the EPA's failure to correctly apply the HRS regulations to a determination of wetland perimeter; the assumption, based on flimsy support, that wildlife species were endangered by Site Q; and the failure to take proper groundwater samples at Site Q, contrary to legal precedent that has established the appropriate procedure for collecting such samples. For all of these reasons, the EPA's underlying methodology for conducting the scoring should be reconsidered, abandoned, and the HRS score it derived recalculated.

### **1. EPA Erroneously Ignored The 1994 Removal Action in Southern Q**

Just as there is no doubt that the Agency here failed or refused to consider a prior removal action at the southern part of Site Q, there is also no doubt that in 1994 the Illinois EPA performed a CERLCA time-critical removal action on the southern portion of Site Q to remove drums that were leaking hazardous substances. *See*, Newfields Report, Exhibit 41. In the 1994 removal, the Illinois EPA's contractor removed hazardous wastes from Southern Q. *supra*, at Exhibit 41.

Under the Agency's HRS Guidance, the results of a qualifying removal action must be considered if the removal meets three tests: it must have resulted in the removal of hazardous substances, it must have occurred prior to the "site cutoff date," and the waste must have been disposed of at a proper RCRA facility. Application of this test leaves no doubt that the 1994 removal on southern Q is a qualifying removal, because the IEPA-led removal obviously complied with the first and third elements. As to the cutoff date, although the Agency has not stated such a date, it is clear from the materials referenced by the EPA in the HRS Documentation Record that it considered data much of much more recent vintage than the 1994

removal, even data from as late as 1999. Accordingly, the Agency had no basis for disregarding the affect of the 1994 removal, and as a result of this, the HRS score calculated by the Agency was obtained in violation of HRS regulations and Guidance.<sup>5</sup>

## **2. EPA Wetland Perimeter Calculations Are Erroneous**

In developing a "targets" score, the HRS provides for estimating a score for sensitive areas such as wetlands. Regardless of the concentrations of hazardous substances under consideration, the HRS provides the same method for determining the proper score, and the method requires the scorer to determine the total length of wetlands that lie along the hazardous substance migration path, and assign a risk-based number from a table. HRS Regulations §§ 4.1.4.3.1.1 and 4.1.4.3.1.2; 40 C.F.R. §§ 4.1.4.3.1.1-4.1.4.3.1.2; HRS Guidance, p. 331-333. These same regulations also provide that for rivers, the scorer should use the length of the wetland frontage along the shoreline. The HRS Guidance manual is in agreement with this. HRS Guidance, Highlight 8-61, p. 333.

UE's consultant, Newfields, using the same photographic materials and drawings as the EPA, performed this calculation for the wetland areas on Site Q, calculating the total length of the wetland frontage lying along the Mississippi River. The total obtained was 1.45 miles. *See*, Newfields Report, p. 33. But the Agency used another approach, and instead of totaling total river frontage miles, EPA calculated the total perimeter of all wetlands in Site Q, whether that perimeter fell along river frontage or not. The result obtained through disregard of the regulations and the guidance was 3.6 miles, or more than two times the appropriate number. This improper doubling of the wetland length resulted in the improper doubling of the HRS score for potential sensitive environments. *See*, Newfields Report, p. 32.

The only possible conclusion from reviewing the Agency's doubling method for computing wetland frontage is that the Agency assumes that contamination from Site Q itself enters the wetlands within Q. For central Site Q, however, there is no evidence that any contaminants in this area would enter the wetlands in Q. Accordingly, EPA should re-calculate the incorrectly computed sensitivity factor for wetlands, and utilize one-half of the value that presently contributes to the HRS score for this site.

## **3. Site Q Is Not A Wildlife Habitat**

The Agency actually scored Site Q as if it were a habitat for endangered species. Site Q has been studied extensively to evaluate its potential to provide habitat for endangered species,

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<sup>5</sup> As noted in the Newfields Report, EPA has already considered a significant quantity of data generated well after the 1994 removal action, and even after the initial IEPA Site Investigation. Newfields Report, p. 31.

and there have been found several features in Site Q that could make the site suitable for such species, except that Site Q lacks both breeding and feeding habitat areas, making the EPA's assumption suspect and highly unlikely. Moreover, Site Q and even central Site Q are at the heart of significant commercial activity, rendering the EPA's conclusion about endangered species even more remote. Site Q was not properly scored as a wildlife habitat. See, Newfields Report, pp. 34-35.

**4. EPA's Groundwater Sampling Was Improper and The Results Are Demonstrably Inconsistent**

Two sets of groundwater monitoring data have been taken by the governments at Site Q. One set was taken in 1987, and the other in 1999. The earlier set was taken using conventional groundwater sampling techniques which included 1) establishment and development of an enclosed, permanent groundwater well and 2) proper development of the well through installation, bailing and observation; 3) the filtration of the well sample, to avoid spurious results from particulate matter entrained in the sample. All of these steps were taken as a recognized and customary precaution against inaccurate results due to the inadvertent sampling of a soil particle that is not really part of the groundwater regime. And all of these steps relate directly to minimizing agitation of the water column when sampling, followed by a further precaution – filtration – to assure that soil particles don't result in an unnecessary remediation because of incorrectly "high" results. Analysis of the 1987 samples showed that groundwater levels of PCBs, Aldrin and Dieldrin were either zero or beyond the detection limit used in the test.

EPA again took groundwater samples in 1999, analyzing the samples for the same constituents. In this later round of sampling, it appears EPA did everything in its power to skew these test results high. EPA abandoned the traditional means of obtaining groundwater samples, selecting instead a sampling that is the antithesis of quiescence: A "GeoProbe" sampler was used, a device designed for speed, not accuracy, in sample-taking. This device is advanced through the soil into the groundwater in a continuous series of "pushes," and is known to cause contaminated soil from horizons above the groundwater to enter the groundwater that is to be tested, while at the same time agitating the groundwater itself and causing the entrainment of additional soil particles. Nor is there any period for well development, nor for allowing the groundwater regime to return to an uninterrupted state, because the groundwater sample is taken without any waiting period. Finally, to further assure capturing a soil particle in the ultimate tested sample, no filtration was performed.

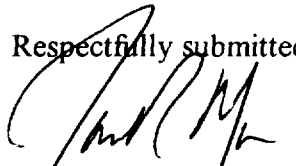
The use of unfiltered samples by EPA for purposes of HRS scoring has been rejected by two courts that reviewed nearly identical issues on the same day. *Anne Arundel County v. U.S. EPA*, 963 F.2d 412 (D.C. Cir. 1992); and *Kent County v. U.S. EPA*, 963 F.2d 391 (D.C. Cir. 1992). In both cases, EPA had utilized unfiltered groundwater results to score and propose a site for listing on the NPL, and in both cases the Court of Appeals rejected EPA's attempt to do so,

recognizing that testing via unfiltered means may skew the results upwards. And while both courts allowed for the Agency to develop internal guidance on appropriate sampling techniques, the courts did not go so far as to allow EPA to adopt the routine use of a GeoProbe coupled with a sampling method prone to error. Here the sampling data and text showing the results fails to contain any documentation to justify the unconventional means of sampling, much less the failure to filter the groundwater samples. Accordingly, the Agency's data that contributed to a score representing this data should be disregarded, and recalculated based upon the 1987 testing results. *See*, Newfields Report, pp. 36-37.

## VI. CONCLUSION

For all of the reasons specified in these comments and in the Newfields Report, the listing of Sauget Area 2, as it is presently described by EPA, would be arbitrary and capricious, and an abuse of discretion by the Agency. AmerenUE therefore requests that EPA reject the proposed rule for NPL listing, and remove Sauget Area 2 from the proposed list of NPL sites.

Respectfully submitted,



James R. Morrin  
Joseph A. Madonia  
Counsel for AmerenUE

JRM/lk  
Enclosures